

REMARKS/ARGUMENTS

Claims 2 to 7 were objected to because of informalities. Claim 13 was rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Gloger et al. (US 2002/0172400). Claims 1, 9 and 12 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Groves (US 5,414,439) in view of Wen-Chiang Huang; Chwan-Hwa Wu "Industrial Electronics, IEEE Transactions on" (vol. 45, issue 2, April 1998, pp. 351 to 357). Claims 2 and 3 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Groves and Wen-Chiang Huang; Chwan-Hwa Wu, and further in view of Kuwata et al. (US 2002/0044122). Claim 10 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Groves and Wen-Chiang Huang; Chwan-Hwa Wu as applied to claim 1 above, and further in view of Matsuda et al. (US 2003/0147053). Claim 11 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Groves and Wen-Chiang Huang; Chwan-Hwa Wu as applied to claim 1 above, and further in view of Lathrop (US 4,857,901). Claims 4 to 7 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Groves, Wen-Chiang Huang; Chwan-Hwa Wu, and Kuwata et al. as applied to claim 2 above, and further in view of Gloger et al. Claim 8 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Groves and Wen-Chiang Huang; Chwan-Hwa Wu as applied to claim 1 above, and further in view of Gloger et al. Claims 2 and 8 have been amended.

Reconsideration of the application based on the following is respectfully requested.

Claim Objections

Claims 2 to 7 were objected to because of informalities.

Claim 2 has been amended to clarify any possible antecedent basis issue. The function used with the table is not necessarily the same function. Support can be found at paragraphs [0018] to [0028], for example.

With respect to the dependency of claim 2, Applicants thank the Examiner and have amended claim 2 as suggested so as to depend from claim 1.

Withdrawal of the objections to claim 2 and its dependent claims 3 to 7 is therefore respectfully requested.

35 U.S.C. §102(e) Rejections

Claim 13 was rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Gloger et al. (US 2002/0172400).

Gloger “concerns a process and a device for improving the visibility in vehicles, in particular at night, bad weather and fog” (see, e.g. Gloger, paragraph [0002]). “The process facilitates the recognition by the vehicle operator of images of traffic scenes recorded outside the visible spectrum” (see, e.g. Gloger, paragraph [0002]).

In Gloger, an object must be recognized, and “a color which such an object would typically have by daylight” is used to “reproduce the object in this color” (see Gloger at [0017]).

Claim 13 has been amended and recites: “A method for enhancing vision in a vehicle, the method comprising:

detecting input color values using an image-recording device,
assigning display color values to the input color values using an image-processing device,
wherein assigning of the display color values to input color values is performed as a function of an environmental condition surrounding the vehicle.”

Support can be found at paragraphs [0010], [0011] and [0020], for example.

It is respectfully submitted that Gloger does not teach or disclose “assigning display color values to the input color values”. Gloger does not “assign the display color values to input color values.” Rather, Gloger provides a single display color to an entire identified object, but not to any input color values. The input color of the object is irrelevant in Gloger to the assigning: it is the object identification which causes the assigning of the display color. Gloger thus requires a recognition and classification device. See, e.g. Gloger, paragraph [0017].

Withdrawal of the rejection to claim 13 under 35 U.S.C. §102(e) as allegedly being anticipated by Gloger therefore is respectfully requested.

35 U.S.C. §103(a) Rejections as to claims 1 to 9 and 12

Claims 1, 9 and 12 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Groves (US 5,414,439) in view of Wen-Chiang Huang; Chwan-Hwa Wu “Industrial Electronics, IEEE Transactions on” (vol. 45, issue 2, April 1998, pp. 351 to 357).

Groves “relates to a night vision enhancement system for motor vehicles and particularly to such a system incorporating head up display technology” (see, e.g. Groves, col. 1, lines 6 to 8). Groves uses “an infrared sensor or camera mounted on a vehicle to view the roadway in front of the vehicle and generate a video signal representing the thermal image of the roadway, a video processor for improving characteristics of the video signal, and a head up display (HUD) having a video display responsive to the video signal” (see, e.g. Groves, col. 1, lines 43 to 49).

Wen-Chiang relates to “a fuzzy-based method for recognizing color objects in a complex background under varying illumination” (see, e.g. Wen-Chiang, p. 351, col. 1, lines 1 to 3). Their “goal is to recognize the color of an object from a complex scene using fuzzy reasoning (see, e.g. Wen-Chiang, p. 351, col. 2, lines 29 to 30) and they propose a system wherein the fuzzy rules are “based on the properties of surrounding pixels in order to make a decision” (see, e.g. Wen-Chiang, p. 351, col. 1, lines 10 to 11).

Claim 1 has been amended and recites: “A vision-enhancing device for a motor vehicle, comprising:

- an image-recording device configured to record a plurality of input color values;
- an image-display device; and
- an image-processing device configured to determine a plurality of display color values for display by the image-display device, each display color value corresponding to a respective input color value and determined as a function of an environmental condition surrounding the motor vehicle.”

Support can be found at paragraphs [0010], [0011] and [0020], for example.

It is respectfully submitted that neither Groves nor Wen-Chiang teach or disclose “each display color value corresponding to a respective input color value and determined as a function of an environmental condition surrounding the motor vehicle” as recited in claim 1 of the present invention. As admitted in the Office Action on page 4, “Groves et al. does not disclose that each displayed color value is determined as a function of an environmental condition” (see Office Action, p. 4); and the Examiner thus asserts and relies on Wen-Chiang as showing this limitation.

Wen-Chiang does not teach or disclose “each display color value corresponding to a respective input color value and determined as a function of an environmental condition surrounding the motor vehicle” as recited in claim 1 of the present invention. Wen-Chiang

refers only to the classification and classificationists which consider the influence of the adjacent pixels and their optimization. In the experiment discussed in Wen-Chiang, “the environment of a pixel $d_{m,n}$ is defined as the 5 x 5 pixels surrounding it” (see, e.g. Wen-Chiang, p. 353, col. 6, lines 19 to 24). This is not “an environmental condition surrounding the motor vehicle” as claimed in claim 1 of the present invention.

Withdrawal of the rejection to claim 1 and its dependent claims under 35 U.S.C. §103(a) is therefore respectfully requested.

35 U.S.C. §103(a) Rejections as to claims 2 and 3

Claims 2 and 3 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Groves and Wen-Chiang Huang; Chwan-Hwa Wu, and further in view of Kuwata et al. (US 2002/0044122).

Kuwata relates to a technique that “carries out image processing of image data, which are to be supplied to an image display apparatus having a less number of expressible tones than a number of tones included in original image data and a non-linear display characteristic” (see, e.g. Kuwata, Abstract).

Claim 2 recites: “The device as recited in claim 1, further comprising a memory unit for storing a plurality of color tables, each color table assigning input color values to corresponding display color values and wherein the image-processing device selects at least one of the plurality of color tables as a further function of or the function of the environmental condition.”

It is respectfully submitted that neither Groves, Wen-Chiang nor Kuwata teach or disclose: “The device as recited in claim 1, further comprising a memory unit for storing a plurality of color tables, each color table assigning input color values to corresponding display color values and wherein the image-processing device selects at least one of the plurality of color tables as a further function of or the function of the environmental condition” as recited in claim 2 of the present invention.

However, it is respectfully submitted that it would not have been obvious to add such tones on the basis of any environmental condition as now claimed.

As claim 2 depends from claim 1, withdrawal of the rejection to claim 2 and its dependent claim 3 under 35 U.S.C. §103(a) therefore is respectfully requested.

35 U.S.C. §103(a) Rejection as to claim 10

Claim 10 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Groves and Wen-Chiang Huang; Chwan-Hwa Wu as applied to claim 1 above, and further in view of Matsuda et al. (US 2003/0147053).

Matsuda “relates to an image display system, a projector, an information storage medium, and an image processing method” (see, e.g. Matsuda, paragraph [0001]).

Claim 10 recites: “The device as recited in claim 1, wherein the display color values are grayscale values.”

It is respectfully submitted that neither Groves, Wen-Chiang nor Matsuda teach or disclose: “The device as recited in claim 1, wherein the display color values are grayscale values” as recited in claim 10 of the present invention.

It is respectfully submitted that it would not have been obvious to have combined Matsuda in the context of the Groves and Wen-Chiang device, as Matsuda is for a special kind of projector.

As claim 10 depends from claim 1, withdrawal of the rejection to claim 10 under 35 U.S.C. §103(a) therefore is respectfully requested.

35 U.S.C. §103(a) Rejection as to claim 11

Claim 11 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Groves and Wen-Chiang Huang; Chwan-Hwa Wu as applied to claim 1 above, and further in view of Lathrop (US 4,857,901).

Lathrop “relates generally to the field of digital computers, and, in particular, relates to apparatus for controlling computer graphics displays” (see, e.g. Lathrop, col. 1, lines 6 to 8).

Claim 11 recites: “The device as recited in claim 1, wherein the display color values are color values of a false color display.”

It is respectfully submitted that neither Groves, Wen-Chiang nor Lathrop teach or disclose: “The device as recited in claim 1, wherein the display color values are color values of a false color display” as recited in claim 11 of the present invention.

As claim 11 depends from claim 1, withdrawal of the rejection to claim 11 under 35 U.S.C. §103(a) therefore is respectfully requested.

35 U.S.C. §103(a) Rejections as to claims 4 to 7

Claims 4 to 7 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Groves, Wen-Chiang Huang; Chwan-Hwa Wu, and Kuwata et al. as applied to claim 2 above, and further in view of Gloger et al.

As claims 4 to 7 depend from claim 2, withdrawal of the rejections to claims 4 to 7 under 35 U.S.C. §103(a) therefore is respectfully requested.

35 U.S.C. §103(a) Rejection as to claim 8

Claim 8 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Groves and Wen-Chiang Huang; Chwan-Hwa Wu as applied to claim 1 above, and further in view of Gloger et al.

As claim 8 depends from claim 1, withdrawal of the rejection to claim 8 under 35 U.S.C. §103(a) therefore is respectfully requested.

New Claims

New claims have been added, support for which is found at [0009] for example. It is respectfully submitted that these claims are patentable over the prior art of record.

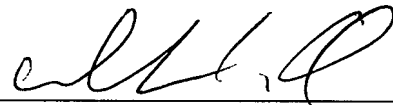
CONCLUSION

The present application is respectfully submitted as being in condition for allowance and applicants respectfully request such action.

If any additional fees are deemed to be due at this time, the Assistant Commissioner is authorized to charge payment of the same to Deposit Account No. 50-0552.

Respectfully submitted,

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